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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,975

06/30/2006

Klaus Steinhauser

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DAVIS BUJOLD & Daniels, P.L.L.C.
112 PLEASANT STREET
CONCORD, NH 03301

EXAMINER

KNIGHT, DEREK DOUGLAS

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,975	Applicant(s) STEINHAUSER ET AL.	
	Examiner DEREK D. KNIGHT	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/30/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the full load curve, the motor controller, the transmission controller, and the pressure controller must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 14-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 14, line 9, "the maximum attainable full load curve" is recited. It is unclear to the examiner how this curve would be used or incorporated into the invention based on the lack of description of a "full load curve" in the specification.

In claim 15, line 2, "monitoring disengaging of the switching element" is recited. The means and/ or the procedure by which the disengagement is monitored are not described in the specification.

In claim 15, line 6, "a corresponding rotational speed gradient is set in a new synchronous rotational speed direction" is recited. The specification does not adequately describe "a new synchronous rotational speed direction."

In claim 16, lines 2-3, "a continuous and a decreasing rotational speed difference is set as a new synchronous speed" is recited. It is unclear to the examiner what values would be used to establish the speed difference. It is also unclear to the examiner how a decreasing speed difference can be set as a new synchronous speed.

In claim 18, line 4, “a motor controller and ... a transmission controller” are recited. The specification does not describe how these elements would be used in the invention as claimed.

In claim 19, lines 2-3, “the additional motor fueling actually executed from the disengaging switching element” is recited. The specification does not describe how the disengaging switching element can execute the additional motor fueling.

In claim 19, line 4, “a pressure controller” is recited. The specification does not describe how this element would be used in the invention as claimed.

In claim 20, lines 2-3, “additional motor fueling actually executed to the engaging switching element” is recited. The specification does not describe how additional motor fueling can be executed **to** the disengaging switching element.

In claim 20, lines 3-4, “a pressure controller” is recited. The specification does not describe how this element would be used in the invention as claimed.

In claim 22, line 3, “an acceleration collapse” is recited. This phenomenon is not described in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation “the rotational speed gradient (turbine revolution speed)”. It is unclear to the examiner if the “rotational speed gradient” is synonymous

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with turbine revolution speed. A gradient is used to describe the rate of change of speed, or acceleration. Applicant should specify which characteristic they wish to claim, either the "rotational speed gradient" or the "turbine revolution speed"

Claim 14 recites the limitation "the disengaging switching element" in lines 4 - 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the rotational speed gradient" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the maximum attainable full load curve" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the switching element" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "additionally required motor fueling" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the additional motor fueling" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the switching procedure" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the additional motor fueling" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-23, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by **POPP (US 6,375,597)**.

Regarding claim 14, as best understood by the examiner, POPP discloses a method of increasing readiness of a crossover gear shift in an automatic transmission, the method comprising the steps of: providing a switching command (shown in Fig. 5A) immediately followed by a motor fueling (at t3 shown in Fig. 5B); attaining at least one of a snatch operation of the disengaging switching element and an increase of the rotational speed gradient (turbine revolution speed) (Fig. 5B), in which the motor fueling occurs via one of presetting of a set rotational speed (at C in Fig. B) to be employed and presetting of a set motor torque to be employed, the motor fueling being provided through the transmission system (in response to the shifting signal); and attaining the motor fueling up to the maximum attainable full load curve (up to point C in Fig. 5B), in which the set rotational speed to be employed and the set motor torque to be employed are provided, depending on the intended increase in readiness.

Regarding claim 15, as best understood by the examiner, POPP discloses monitoring disengaging of the switching element (via Fig. 5C), which keeps the rotational speed at an old synchronous rotational speed (until point A in Fig. 5B), for protection of an unintentional transfer of additionally required motor fueling to an output, the disengagement of the switching element occurs up to a defined time (t4) after

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starting the additional motor fueling and subsequently a corresponding rotational speed gradient is set in a new synchronous rotational speed direction (at point C in Fig. 5B).

Regarding claim 16, as best understood by the examiner, POPP discloses monitoring whether a continuous and a decreasing rotational speed difference (point C in Fig. 5B rather than point B) is set as a new synchronous rotational speed.

Regarding claim 17, as best understood by the examiner, POPP discloses if a further gear shift is not produced, discontinuing the additional motor fueling after certain duration (T4) beyond the achievement of the new synchronous revolution speed.

Regarding claim 18, as best understood by the examiner, POPP discloses forming torque signals for one of different components of the switching procedure and for the disengaging switching element and an engaging switching element, differently either in one of a motor controller (see col. 3, line 29) and in a transmission controller (13), and transferring the torque signals in each case to the other controller.

Regarding claim 19, as best understood by the examiner, POPP discloses the steps of one of retaining the additional motor fueling actually executed from the disengaging switching element and not considering the additional motor fueling actually executed with a pressure controller (14) of the disengaging switching element.

Regarding claim 20, as best understood by the examiner, POPP discloses the step of one of transferring additional motor fueling actually executed to the engaging switching element and considering the additional motor fueling actually executed with a pressure controller of the engaging switching element.

Regarding claim 21, as best understood by the examiner, POPP discloses the step of reducing pressure, in addition to the motor fueling, in the disengaging switching element, such that the opening of the disengaging switching element is accelerated.

Regarding claim 22, as best understood by the examiner, POPP discloses the step of increasing pressure, in addition to the motor fueling, in the disengaging switching element such that an acceleration collapse is reduced in an output of the automatic transmission.

Regarding claim 23, as best understood by the examiner, POPP discloses the step of, in addition to the motor firing, increasing pressure in the engaging switching element.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEREK D. KNIGHT whose telephone number is (571)272-7951. The examiner can normally be reached on Mon - Thurs & every other Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. D. K./
Examiner, Art Unit 3681

/CHARLES A. MARMOR/
Supervisory Patent Examiner, Art
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